**Table 1: Modify Text Attributes** 

| LEVEL_4 | PARAGRAPH<br>_ID | OBJECT_ID | RELE<br>ASE | TEXT  | CLARIFICAT<br>ION   | REQ_TYPE   | REQ_STATUS | VERIFICATI<br>ON_METHO<br>D | VERIFICA<br>TION_STA<br>TUS | CCR     |
|---------|------------------|-----------|-------------|---|---|------------|------------|-----------------------------|-----------------------------|---------|
| CC      | F-FOS-00200      | 13072     | B           | The ECS shall contribute a loop delay of not greater than 2.5 seconds of the total system delay of six (6) seconds for emergency real-time commands, not including the time needed for command execution. | The loop delay is measured from the EOC to the spacecraft and back to the EOC. The loop delay requirement only applies when a TDRSS link is available for contact to the spacecraft. CSMS is providing the communication and networking services which are part of the 2.5 second portion that ECS contributes to the total round-trip delay. | functional | approved   | test                        | unverified                  | 97-0717 |
| CT      | F-FOS-00200      |           |             | The ECS shall contribute a loop delay of not greater than 2.5 seconds of the total system delay of five (5) seconds   |   |            |            |                             |                             |         |

Page 3

|     |  | for emergency |  |  |  |
|-----|--|---------------|--|--|--|
|     |  | real-time     |  |  |  |
|     |  | commands,     |  |  |  |
|     |  | not including |  |  |  |
|     |  | the time      |  |  |  |
|     |  | needed for    |  |  |  |
|     |  | command       |  |  |  |
|     |  | execution.    |  |  |  |
| EOT |  |               |  |  |  |

## Table 2: Add F&PRS to RBR Link

| L3_TO_REL | PARAGRAPH<br>_ID | PARAGRAPH<br>_ID |
|-----------|------------------|------------------|
| LINK      | EOC-8372         | EOC-8372#B       |
| EOT       |                  |                  |

## **Table 3: Add New Level 4s**

| LEVEL_4 | PARAGRAPH<br>_ID | OBJECT_I<br>D | RELEASE    | TEXT   | CLARIFICA<br>TION  | REQ_TYPE   | REQ_STAT<br>US | VERIFICATIO<br>N_METHOD | VERIFICATI<br>ON_STATUS | CCR |
|---------|------------------|---------------|------------|--|--|------------|----------------|-------------------------|-------------------------|-----|
| ADD     | F-ANA-07145      |               | <u>FPB</u> | The FOS shall use an user-defined return channel time delay measurement as input to the RDD algorithm. | The user- defined time delay measurement is obtained by the FOT from the NCC and input into a FOS configuration table. This table can be edited by the FOT if a new or updated data delay value is | functional | approved       | demo                    | unverified              |     |

| LEVEL_4 | PARAGRAPH<br>_ID | OBJECT_I<br>D | RELEASE | TEXT   | CLARIFICA<br>TION   | REQ_TYPE          | REQ_STAT<br>US    | VERIFICATIO<br>N_METHOD | VERIFICATI<br>ON_STATUS | CCR |
|---------|------------------|---------------|---------|--|---|-------------------|-------------------|-------------------------|-------------------------|-----|
|         |                  |               |         |  | obtained from the NCC. A single data delay value is used for all sites (WSGT, STGT).  |                   |                   |                         |                         |     |
| ADD     | F-ANA-07245      |               | FPB     | The FOS shall, for the USCCS method, provide the capability to use different internal spacecraft delay values depending on the configured telemetry downlink rate. | These internal spacecraft delay values are obtained by the FOT from the spacecraft vendor and input into a FOS configuration table. This table can be edited by the FOT if new or updated delay values are obtained from the spacecraft vendor. | functional        | approved          | demo                    | unverified              |     |
| ADD     | F-DMS-00275      |               | FPB     | The FOS shall provide the capability for the user to input derived telemetry definitions in INFIX notation. The EOC  |   | <u>functional</u> | approved approved | demo                    | unverified              |     |

| LEVEL_4 | PARAGRAPH<br>_ID | OBJECT_I<br>D | RELEASE    | TEXT   | CLARIFICA<br>TION   | REQ_TYPE   | REQ_STAT<br>US | VERIFICATIO<br>N_METHOD | VERIFICATI<br>ON_STATUS | CCR |
|---------|------------------|---------------|------------|--|---|------------|----------------|-------------------------|-------------------------|-----|
| ADD     | F-DMS-00375      |               | <u>FPB</u> | shall retain previously- entered FOT/IOT modifications to PDB definitions when a new database is ingested from the spacecraft vendor. The EOC shall provide an informational comment in the PDB validation report when identical red/yellow high/low limits are encountered during PDB validation. | The identical limit values should pass PDB validation and should remain in the validated PDB. | functional | approved       | demo                    | unverified              |     |
| ADD     | F-DMS-00430      |               | <u>FPB</u> | The FOS shall provide the capability to include derived telemetry definitions in PDB reports in INFIX notation.  |   | functional | approved       | demo                    | unverified              |     |
| ADD     | F-DMS-01453      |               | <u>FPB</u> | The FOS shall ingest and validate  | TBD/TBR items in the FDD/ECS  | functional | approved       | demo                    | unverified              |     |

| LEVEL_4 | PARAGRAPH<br>_ID | OBJECT_I<br>D | RELEASE    | TEXT   | CLARIFICA<br>TION   | REQ_TYPE   | REQ_STAT<br>US | VERIFICATIO<br>N_METHOD | VERIFICATI<br>ON_STATUS | CCR |
|---------|------------------|---------------|------------|--|---|------------|----------------|-------------------------|-------------------------|-----|
|         |                  |               |            | all FDF products listed: a. Antenna Slew Table b. Simulated UTC to UT1 Timing Difference | ICD are not validated.  |            |                |                         |                         |     |
| ADD     | F-FOS-10270      |               | <u>FPB</u> | The FOS shall provide the capability to restrict an IST site to "read-only" privileges.  | This capability will be used to restrict privileges for the U.S. ASTER Science Team IST. For IST sites that are "read-only", some IST tools will not be available at startup. | functional | approved       | demo                    | unverified              |     |
| EOT     |                  |               |            |  |   |            |                |                         |                         |     |

Table 4: Add RBR to Level 4 Link

| RELEASE<br>_TO_L4 | PARAGRAPH<br>_ID | PARAGRAPH<br>_ID   |
|-------------------|------------------|--------------------|
| LINK              | EOC-3017#B       | <u>F-DMS-01453</u> |
| LINK              | EOC-5187#B       | F-ANA-07145        |
| LINK              | EOC-5187#B       | F-ANA-07245        |
| LINK              | EOC-7010#B       | <u>F-DMS-00275</u> |
| LINK              | EOC-7025#B       | F-DMS-00275        |

Page 7

| RELEASE<br>_TO_L4 | PARAGRAPH<br>_ID | PARAGRAPH<br>_ID |
|-------------------|------------------|------------------|
| LINK              | EOC-7030#B       | F-DMS-00370      |
| LINK              | EOC-7045#B       | F-DMS-00375      |
| LINK              | EOC-7045#B       | F-DMS-00430      |
| LINK              | FOS-0040#B       | F-FOS-10270      |
| LINK              | ICC-4710#B       | F-DMS-00275      |
| LINK              | ICC-4730#B       | F-DMS-00275      |
| LINK              | ICC-4740#B       | F-DMS-00370      |
| LINK              | ICC-4740#B       | F-DMS-00375      |
| LINK              | ICC-4760#B       | F-DMS-00375      |
| LINK              | ICC-4760#B       | F-DMS-00430      |
| LINK              | NI-0350#B        | F-DMS-01453      |
| EOT               |                  |                  |